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ABSTRACT

Changes in adolescents' perceptions of people over 60 years old occurred following two months of daily intergenerational contact in a naturalistic setting (i.e., the school lunch period). Sixth-, seventh-, and eigth-graders' perceptions of the aged became less negative and stereotyped. Boys had more negative stereotyped perceptions of the aged than girls, and the girls indicated greater willingness to interact with the elderly. The girls changed their perceptions of the aged more than the boys, while younger adolescents changed their perceptions more than older adolescents. Results and suggestions for future research are discussed in terms of previous studies on intergenerational contact and racial prejudice. (Author)

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Changes in Adolescents' Perception of the Aged

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Changes in Adolescents' Perceptions of the Aged

The purpose of the present study was to investigate changes in adolescents' perceptions of people over 60 years old as a result of intergenerational contact. Bronfenbrenner (1971) suggested that there is a major problem of alienation between individuals of different age groups in our age-segregated society. He proposed fighting this problem by providing settings in which young and old could simply sit and talk. However, there is little research evidence regarding the results of such a proposal. The problem of age-segregation may be of particular importance for the elderly in our society since it has been suggested that negative attitudes toward aging and the aged exist (Bennett, & Eckman, 1973; McTavish, 1971) and that such attitudes and perceptions may be crucial for the psychological adjustment and survival of the elderly.

Recent studies focusing on changing attitudes toward aging and the aged by means of classroom instruction and contact with the elderly have provided inconsistent results. Positive attitudes toward aging as a result of classroom instruction were reported for college students (Hallaver, & Gordon, Note 1), while other studies have reported no significant changes for either high school students (White, Note 2) or college students (Hudis, 1974; Tuckman, & Lorge, 1954). Research on the effects of frequency of contact has focused primarily on college students either working with the elderly or reporting frequency of contact with grandparents. Positive changes in attitudes toward the aged were reported for social work students (Farrar, & Bloom, Note 3) and medical students (Cicchetti, Fletcher, Lerner, & Coleman, 1973) who worked with old people and college students who had at least weekly contact with their grandparents showed more favorable attitudes toward the aged. However, frequency of contact with grandparents has also been found to have no effect on

attitudes for either college students (Drake, 1957) or high school students (Ivester & King, 1977), and one study involving nursing students (Gunter, 1971) reported an increase in negative attitudes toward the aged as a result of contact with the elderly. These conflicting results are not surprising if the research on attitudes toward the aged is compared to the studies on racial prejudice.

The effects of interpersonal contact on racial prejudice has been found to depend on: 1) the relative status of the different ethnic groups involved; 2) the intimacy of the contact; 3) the degree to which the contact is pleasant or rewarding; and 4) the importance of the interaction (see Amir, 1969). In his review of research on the contact hypothesis in racial relations, Amir (1969) concluded that contact between members of different racial groups tends to produce some changes in attitudes. However, interracial contact does not always improve racial relations, since contact has also been found to increase prejudice (cf. Fishbein & Ajzen, 1972). "The direction of change depends largely on the conditions under which contact has taken place, 'favorable' conditions tend to reduce prejudice, 'unfavorable' conditions may increase prejudice and intergroup tension" (Amir, 1969, p. 338).

In a recent experiment attempting to reduce adolescent girls' misperceptions of the aged (LaBouvie-Vief & Baltes, 1976), subjects were assigned to one of four training conditions and were given either specific, general or no feedback information regarding the actual self-endorsement of elderly women. Perceptions of the aged changed in the direction of greater similarity with the self-descriptions of the elderly. The effects of specific training procedures however were limited to one of three personality dimensions, i.e., dominance rather than aggression or nurturance. In addition, it is not known whether the changes in perceptions of the aged were maintained outside of the laboratory. The present study approached the issue of changing adolescents' perceptions

of the aged from a more ecological perspective by studying the changes in a naturalistic setting (i.e., the school lunch room). Based on previous findings regarding the effects of interpersonal contact on reducing racial prejudice and previous studies reporting changes in attitudes toward the aged as a result of interpersonal contact, it was expected that daily contact with the aged during the lunchtime social setting at school (a "favorable" condition) would result in changes in adolescents' perceptions of the aged from less negative and stereotyped to more positive and less stereotyped. Differences between boys and girls and different grade levels were also investigated; however, due to inconsistencies in the results of previous studies no specific predictions were made for sex or grade differences.

Method

Subjects

Subjects were sixth-, seventh-, and eighth- grade students from two public middle schools in a small Midwestern city (pop. 33,000). Most subjects came from middle-income homes and nearly all were Caucasian. The initial samples consisted of the entire student body (n = 494) of one of the schools (School A) and approximately one-third of the students (n = 160) at the second school (School B). Complete data (i.e., initial and retest data; see Design and Procedures section) were available for 369 subjects (178 boys and 191 girls) from School A and 77 subjects (35 boys and 42 girls) from School B. A major source of attrition was subjects' failure to provide sufficient identification information to permit within-subject matching of initial and retest protocals. Scheduling conflicts and student absences accounted for most other cases of missing retest data.

Design and Procedure

Participants were tested on two occasions separated by a 3-month interval. Between the first and second testings, students in School A received daily

exposure to a group of elderly persons as part of a federally-funded food project. Meals were served to approximately 40 persons over 60 years old in the school cafeteria during the students' lunch periods. The adolescents' perceptions of people over 60 years old were assessed at the start of the food project and reassessed after the establishment of separate food facilities for the elderly. Students in School B received no systematic exposure to individuals over 60 years old in their school between the first and second test sessions.

To measure perceptions of the aged, a list of 75 statements about old people was read to the students (see Table 1). Subjects were asked to respond "Yes" to each statement that they considered to be true of "most people over 60 years old" and to respond "No" to each statement that they thought was not true regarding the target group. On the initial testing at each school, the statements were read by the students' teachers in the classroom, while the retesting was done by the researchers with groups of 25 to 75 students in cafeteria or gymnasium facilities. During both sessions, items were repeated twice and students marked their responses on simplified computer answer sheets.

Sixty-eight of the 75 statements were adapted from the Tuckman-Lorge Old People Questionnaire (Tuckman-Lorge, 1953). This questionnaire was chosen because it had been widely used in previous research (see Bennett & Eckman, 1973; and McTavish, 1971, for reviews) and because the stimulus-group validity of the instrument had been established (i.e., the items are generally perceived as being more characteristic of people over 60 than younger age groups (Axelrod & Eisdorfer, 1961)). In the present study, the wording of several items was simplified to facilitate comprehension (e.g., the item "They are critical of the younger generation" on the original questionnaire was rephrased as follows: "They complain about young people."). Seven additional statements

were added by the authors (items 69-75 in Table 1), primarily to assess students' endorsement of personal interactions with people over 60 years old.

Results

School A vs. School B: Initial Testing and Changes

The percentage of subjects in Schools A and B who responded "yes" to each statement regarding "most people over 60 years old" during the initial and retest sessions is presented in Table 1. In general, except in the cases of a few positive type items (e.g., #10: "They are friendly."), the higher the percentage of affirmative responses, the more negative and stereotyped is the perception of people over 60 years old. Only those subjects for whom complete data were available have been included in the percentages in Table 1. Since the initial test data for those students whose retest data were missing or improperly identified were generally more negative than those of students who participated in both test sessions, the percentages presented in Table 1, tend to underestimate the adolescents' negative stereotyped perceptions of the aged.

Inspection of the values for the initial test session at the two schools, indicates significant differences ($p < .05$) in the proportion of affirmative responses between the two schools on 21 of the questionnaire items (see Table 1). Students in School B were generally more favorable than students in School A in their perceptions of old people at the onset of the study. However, of greater concern in the present study was the relative change in attitudes and perceptions in the two schools over the 3-month interval. McNemar's test of correlated proportions (Guilford & Fruchter, 1973) was used to compare the proportion of affirmative responses at the initial and retest sessions for each item at each school.

For School B, significant test-retest differences in the proportion of affirmative responses were noted for only 10 items. Some of the changes were

in the direction of lessened negative stereotyped perceptions, whereas others reflected increasing negative stereotypes. Changes in the endorsement of personal interaction with the aged was generally positive but nonsignificant. For School A, significant test-retest differences were obtained for 35 items ($p < .05$) (see Table 1). For the items adapted from the Tuckman-Lorge scale (i.e., items 1-68 in Table 1), all changes were consistently in the direction of less negative stereotyped perceptions of old people. Most of the changes occurred in response to two types of items: those relating to physical characteristics (i.e., items 36, 48, 54, 59, 65, and 67); and those dealing with aspects of insecurity, i.e., fears about health, death and money (items 16, 33, 43, 56, 58, 62, and 66). With regard to the additional statements assessing endorsement of personal interactions with old people, the two significant changes (items 72 and 74) reflect a more negative attitude. Students at School A were less likely upon retest to agree that they like to be with old people (item 72) and that they feel good when they are with old people (item 74).

In summarizing the results of the comparision of attitudes and perceptions of the students at Schools A and B, it is apparent that the students at the two schools held somewhat different opinions about old people when the study began. However, in School B where systematic contact with people over 60 years old was lacking, attitude change over the 3-month interval was minimal and the direction of change was mixed. In contrast, for students at School A where daily contact with people over 60 years old was present, perceptions of the aged became more positive and less stereotyped over the 3-month interval, presumably as a result of the daily intergenerational contact. The interesting exception to this pattern occurred with respect to the students' personal reactions to being with old people. It appeared that the intergenerational contact provided in the school lunch setting actually lead to a decrease in students'

willingness to interact with the aged.

Sex and Grade Differences

Since the present study was concerned with the changes that intergenerational contact might produce in sex or grade related perceptions of old people, statistical comparisions between grade and sex groups focused on the data from students at School A.

Sex differences in initial responses were minimal as there were no significant differences between the boys and the girls on 58 items. However, the boys gave a significantly higher percentage of affirmative responses ($p < .05$) to nine items (#'s 1, 14, 16, 34, 37, 40, 42, 44, and 61) which indicated negative stereotyped perceptions, while the girls gave more affirmative responses ($p < .05$) to eight items (#'s 10, 17, 47, 54, 59, 70, 71, and 74), most of which indicated not only a more positive perception of the aged (e.g., #10: "They are friendly" or # 47": "They are kind"), but also a greater willingness for positive, interpersonal contact with old people (i.e., #'s 70, 71, and 74). Therefore, there is consistency in the sex differences obtained, indicating that boys were more likely to have more negative stereotyped perceptions of old people, while the girls had more positive perceptions and were more willing to interact with old people.

Examination of changes in initial and retest responses for boys and girls indicated that the perceptions of the aged became less negative and stereotyped for both sexes. For girls significant changes ($p < .05$) in the percentage of affirmative responses to 26 items (#'s 2, 3, 11, 25, 28, 29, 31-33, 35, 36, 38, 40, 43, 46, 48, 49, 52, 54, 56, 59, 60, 62, 64-66) were noted. Each of these items reflected either a decrease in endorsement of negative attributes or an increase in the endorsement of a positive attribute. There was a significant change for girls in a negative direction for one item (#74). For boys, signi-

ficant shifts in affirmative responses occurred for 19 items (#'s 1, 7, 16, 22, 25, 35, 36, 40, 43, 48, 52, 56-59, 62, 64, 66, and 67) and in each case the change indicated a more favorable, less stereotyped perception of the aged.

A complex pattern of results was obtained with regard to differences between grades in initial perceptions. In tests of significance for grade differences, the grade level with the highest proportion of "yes" responses was contrasted with the grade level with the lowest proportion of "yes" responses for each item. Sixth-graders gave the highest percentage of affirmative responses on 16 items, 14 of which reflected negative stereotyped perceptions (#'s 6, 11, 16, 20, 31, 32, 34, 37, 40, 44, 48, 49, 55 and 62) and two of which indicated positive interactions (#'s 72 and 74). Eighth-graders gave the highest percentage of affirmative responses on 11 items, nine negative stereotyped (#'s 8, 19, 26, 27, 33, 39, 42, 50, and 63) and two positive attributes (#'s 2 and 54). The seventh-graders were least likely to respond affirmatively to 17 items. The younger adolescents appeared to be just as likely to have negative stereotypes of older people as older adolescents.

Changes in perceptions of the aged however, were inversely related to grade level. For sixth-graders, significant differences ($p < .05$) in the proportion of "yes" responses between initial and retest sessions were noted for 20 items (#'s 16, 24, 25, 36, 40, 43, 45, 46, 48, 52, 56-59, 61, 62, 64, 66, 67, and 75). In each case, the change indicated a more favorable perception of the elderly at retest. For seventh-graders, significant changes in "yes" responses were noted for 17 items, 15 of which were in the direction of less negative stereotyped perceptions (#'s 2, 11, 17, 25, 31, 35, 36, 40, 43, 48, 54, 56, 58, 61, 66), but two of which reflected an opposite trend (#'s 45 and 71). Among eighth-graders, the proportion of affirmative responses changed significantly ($p < .05$) on 12 items, eight reflecting a less negative stereo-

type (#'s 11, 22, 35, 50, 52, 62, 64, and 66) and four indicating a resistance to interact with old people (#'s 4, 70, 72, and 74).

In summary, there were no consistent differences between grades in initial perceptions. The sixth-graders appeared to be just as likely to have negative stereotypes of old people as eighth-graders. However, changes in perceptions of the aged were inversely related to grade level. More changes occurred among the sixth-graders (20 items changed) than the seventh-graders (15 items changed), while the least number of changes occurred among the eighth-graders (eight items changed) with four changes indicating greater resistance to interact with old people.

Discussion

The purpose of the present study was to investigate, in a naturalistic environment, the effect of increased intergenerational contact on adolescents' perceptions of the aged. The adolescents of both sexes became less negative in their attitudes and developed a less stereotyped perception of the aged following the intergenerational experience. This was especially true with regard to the physical characteristics and feelings of insecurity of the elderly. The girls changed somewhat more that the boys, and the younger students changed more than the older students. However, there was also a decrease in adolescents' willingness to interact more with old people following the intergenerational contact.

Previous studies of the effects of contact with the aged on changing attitudes toward old people have reported inconsistent results; however, these studies have been limited primarily to college students and adults or have simply used self-report indices of contact with grandparents. The results of the present study indicate not only that changes in adolescents' perceptions of the aged occur following increased interpersonal contact but that the changes are more likely among younger

subjects than older subjects. The kind of contact with the aged provided in previous studies may not have been effective in producing changes since the older subjects may have had more firmly established attitudes and perceptions. Although both the younger and older adolescents in the present study had negative stereotyped perceptions of the aged at initial testing, the younger adolescents appeared to have been more maleable and had less firmly established perceptions of the aged. It would appear that future attempts to modify or change attitudes toward aging or perceptions of the aged, such as Project CATE at the Center on Aging, University of Maryland (Jantz and Seefeldt, 1976) are likely to be more successful when working with younger subjects.

It is not surprising that changes occurred in the adolescents' perceptions of the physical characteristics of the aged (e.g., they have poor coordination or they spend much time in bec because of illness) or items relating to food (e.g., they are fussy about food or they are poor eaters) since the students had many opportunities to actually see many different individuals over 60 years old in the cafeteria setting. However, in light of the quality of the interaction context, it is somewhat surprising that other types of perceptions were affected as well. At the onset of the study, the present investigators had expected the cafeteria setting to provide a "favorable" context for intergenerational contact vis-a-vis the dimensions which have been shown to be important in the interracial contact literature (see Amir, 1969). In reality, the context proved to be far from optimal. The old people coming for lunches at the school received special treatment by receiving specially prepared meals, in a special seating area, with special silverware, place settings and even straws (a coveted commodity unavailable to students). Several students commented: "Why do they get all the good stuff?" Therefore, the status of the two age groups was not equal. Since the old people sat in a special area of the cafeteria and everyone was

preoccupied with eating (often quickly) there was little opportunity for intimate contacts as could be provided with either smaller groups of adolescents eating with the elderly or changing the setting to one where the aged are helping students individually in school or the adolescents are helping the aged with tasks at home. It was expected taht the contact which did occur during the lunch period would be pleasant and rewarding; however, this was clearly not true for the old people since they asked to move out of the cafeteria after 2-months, complaining that it was too noisy for them. Perhaps more pleasant and rewarding contact could be easily provided in recreation center facilities. The community in which this study took place is presently reconverting an old post office building into a recreation center for both adolescents and the aged, and follow up studies are being planned. It appeared that the present situation was also deficient in terms of the importance placed on the interaction between generations. Neither the students nor the old people were encouraged to develop relationships with each other. Projects which would involve members of both age groups to cooperate for an important cause (e.g., aged helping students learn to read/ or vice versa; or providing goods and services to needy families) would provide greater significance to the interaction. Finally, based on the model for age integration and socialization in an educational setting proposed by Elder (1967), the ratio of adolescents to old people would be important in influencing changes in attitudes. In the present study the old people were outnumbered by about six to one, and a more balanced ratio would likely facilitate positive interpersonal contacts and relations.

The finding that changes occurred in adolescents' perceptions of the old people's feelings of insecurity is perplexing. This result can be interpreted as indicating less negative stereotyped perceptions of the aged. However, how consistent are these perceptions with the self-described insecurities of the

aged? In a recent Harris Poll (1974) for the National Council on the Aging, it was reported that what bothers the aged most were: crime, poor health, not having enough money to live on, loneliness, and fear of dying. In the present study four items on the questionnaire were related to these insecurities: dying (item 71); loneliness (item 43); money (item 46); and health (item 56). For each item there was a significant change following the contact indicating that the adolescents perceived the aged as being less concerned about these issues. Future attempts to change attitudes toward aging or modify misperceptions of the aged need to be cautious to provide positive and realistic perspectives (e.g., Project CATE, Jantz & Seefeldt, 1976) in fear of simply changing one stereotype for another. Opportunities for adolescents to interact with many different elderly people would be valuable as both age groups could discuss their interests, abilities and fears, thereby reducing the stereotyped perceptions which are prevalent.

Although the intergenerational contact changed adolescents' perceptions of the aged, it also affected the students' willingness to interact with the aged. This was particularly true for the eighth-graders. The imposed contact may have aroused a "psychological reactance" (Brehm, 1966). The treatment to change behavior without the subjects' desire to modify their behavior may have aroused an oppositional tendency. Since it is known that the older students tend to be the most difficult to control during the lunch period and that the eighth-graders dominate, it is an interesting speculation that they may have actually attempted to "drive out the intruders from their territory" (i.e., cafeteria) an event which was, in fact, successfully accomplished.

There have been many inconsistencies in the results of previous studies reporting sex and age differences in attitudes toward the aged. Some studies have found that women have more negative views which are also more stereotyped,

while other studies suggest females are either less negative in their views or do not differ from men (see McTavish, 1971). Although most of these studies have involved either college students or adults, a recent study with adolescents (Iverson & King, 1977) reported no signiffcant differences between males and females. The findings of the present study indicate that males have a more negative stereotyped perception of old people than females, and that females have more positive stereotyped perceptions and are more willing to interact with old people. However, there were no significant differences between males and females on a number of questionnaire items, and whether sex differences actually exist may be related to more specific items rather than a general attitude.

Most of the studies on attitudes toward the aged find that individuals at all ages perceive the aged as having stereotyped traits (see Iverson & King, 1977; and McTavish, 1971), however there are conflicting findings whether older or younger individuals have more negative attitudes toward the aged and whether adolescents' attitudes are really negative or actually positive (Iverson & King, 1977). Hickey and Kalish (1968) found adolescents to have stereotyped perceptions of the aged, however they found no differences between younger and older adolescents. Recently, Thomas and Yamamoto (1975) found that adolescents did not have negative attitudes toward the aged, while Iverson and King (1977) interpreted their findings to indicate that adolescents' attitudes toward the aged were positive rather than negative. The results of the present study suggest that younger, as well as older, adolescents have many negative stereotyped perceptions of the aged, however they also have several positive stereotyped perceptions. This is consistent with the previous research with adolescents (Hickey & Kalish, 1968; Iverson & King, 1977).

Many of the previous inconsistencies regarding sex and age differences on

attitudes toward aging and the aged may be due to the fact that the variety of instruments which have been used to measure attitudes and perceptions of the aged have recently been found not to be equivalent (Hicks, Rogers, & Shemberg, 1976). Also, positive and negative reactions to old people have been reported to be unrelated (Kilty & Feld, 1976) and differences in comparing cross-sectional studies at different times of measurement disregards possible cohort effects or time of measurement effects (Schaie, 1965). What is needed is an extensive, systematic program of research which will not only provide normative, descriptive data regarding sex, age, racial, or other group differences in attitudes toward the aged, but also information regarding the process by which these attitudes and perceptions are formed and how they change. Researchers need to keep differentiated the studies on: perceptions of the aged; attitudes toward the aged; and attitudes toward aging itself; and to extend the research to behavior and interactions with the aged.

In conclusion, the value of the present study was in providing information on the effects of intergenerational contact on adolescents' perceptions of the aged. The findings presented extend the results of previous research on changing adolescents' perceptions of the aged (LaBouvie-Vief & Baltes, 1976) to include both males and females at different grade levels and in a naturalistic environment. We now know more about what happens when you simply bring the young and old together. Adolescents' perceptions of the aged do change; however, future research needs to be cautious when producing changes and to consider the context of the situation (e.g., ratio of young to old; status of age groups; intimacy of contact) when attempting to modify either perceptions of different age groups or their willingness to continue future interactions and relationships. Age integration in a naturalistic environment can reduce the negative stereotype perceptions of the aged. However, it is questionable whether the intergenera-

tional contact affected the old people's perceptions of the adolescents in a similar manner, since the elderly complained about the high noise level in the cafeteria and asked for separate eating facilities after 2 months - bringing an abrupt end to our investigation.

Footnote

[1]Percentages of "Yes" responses for males and females as well as sixth-, seventh-, and eighth-graders are available on request from the authors.

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Table 1

Individual Items and the Percentage of Yes Responses to Each Statement Regarding Most People Over 60-Years-Old

		School A		School B	
		First Testing	3 Month Follow-up	First Testing	3 Month Follow-up
1.	They would like to be young again.	88.6	83.2*	83.1	76.3
2.	They like to keep busy.	83.3	88.9*	90.9	92.1
3.	They are helpless. (a)	10.0	7.3	1.3	3.9
4.	They expect to be obeyed by their children and grandchildren. (b)	78.2	83.9	80.5	73.7
5.	They feel that young parents do not know how to bring up children properly. (a,b)	44.2	48.9	26.3	33.8
6.	They worry about money more than anything else.	13.0	12.0	14.3	11.8
7.	They are afraid to die.	23.2	18.3*	29.9	25.0
8.	They feel that their children forget them.	53.7	48.9	48.7	55.3
9.	They frequently talk to themselves. (a,b)	72.1	72.3	48.7	48.1
10.	They are friendly.	94.0	94.5	89.6	97.4
11.	They should not marry. (a)	23.2	14.1**	11.7	6.7
12.	They don't like to change their ways of doing things.	77.0	75.2	73.7	76.3
13.	They are careless about their table manners.	15.5	15.5	14.3	9.3
14.	They become less intelligent. (a)	31.1	29.8	17.3	22.4
15.	They are in the happiest period of their life.	22.6	24.7	22.1	30.7
16.	They feel miserable most of the time.	27.3	19.8**	18.2	10.7
17.	They are forgetful. (a)	74.8	67.9*	61.0	56.2
18.	They like children and young people. (b)	93.8	94.5	96.1	88.2
19.	They are bossy.	25.8	25.3	33.8	32.9
20.	They frequently fight with their children and relatives.	19.0	16.5	19.7	17.1
21.	They often take part in sports.	19.5	18.5	16.0	21.9
22.	They are a burden to their children.	19.8	13.2*	19.7	12.0
23.	They hide their money. (b)	39.9	43.7	32.5	21.9
24.	They are important in family matters.	84.9	84.7	92.0	76.3**
25.	They fear death more than anything else.	21.0	14.4**	20.8	10.7*
26.	They are selfish. (b)	10.4	9.3	7.8	1.4
27.	They complain about young people.	47.5	49.5	45.5	39.0
28.	They are very sensitive to noise.	66.6	61.3	57.9	60.5
29.	They like being with old friends rather than making new ones.	75.7	67.6**	72.0	68.0
30.	They are very talkative. (b)	76.8	80.7	69.7	68.0
31.	They usually get money for food and clothes from their children. (a)	28.0	20.3**	9.1	12.0
32.	They cannot learn new things.	16.7	14.7	15.6	9.3
33.	They are fussy about food.	35.1	27.2*	27.3	28.9
34.	They spend most of their time reading or listening to the radio. (b)	43.2	45.1	33.8	22.4
35.	They think that their future is hopeless.	28.5	17.7**	21.1	13.7
36.	They feel tired most of the time. (a)	64.4	52.0**	42.9	42.7
37.	They are untidy and careless about their appearance.	9.8	10.3	10.4	5.3
38.	They have many friends.	80.0	85.7*	74.0	78.7
39.	They think the world is getting to be a terrible place to live.	56.0	57.1	58.4	54.5
40.	They are better off in old age homes. (a)	22.3	11.5**	7.8	5.3

		School A		School B	
		First Testing	3 Month Follow-up	First Testing	3 Month Follow-up
41.	They like to think about the good old days. (b)	96.2	94.3	92.2	86.5
42.	They are hard to get along with. (b)	12.9	10.6	16.0	21.3
43.	They are lonely. (a,b)	67.0	55.2**	49.4	40.5
44.	They are mean.	5.2	5.2	10.4	8.0
45.	They repeat themselves when they talk.	61.6	58.7	52.6	51.3
46.	They worry about no having enough money.	33.5	27.0*	37.7	32.9
47.	They are kind.	93.4	94.6	89.6	97.2
48.	They have poor coordination. (a)	47.1	30.9**	30.7	20.5
49.	They like to play checkers or dominoes. (a,b)	62.0	56.9*	37.3	27.0
50.	They are old fashioned. (a)	71.1	64.2*	57.9	59.2
51.	They are a bother to others.	14.9	10.6*	9.5	10.4
52.	They spend much time in bed because of illness.	36.5	23.2**	25.0	20.0
53.	They collect many useless things like string, paper and old shoes. (a,b)	43.6	42.0	28.9	26.0
54.	They spoil their grandchildren.	76.2	81.1*	77.9	75.0
55.	They do not like people of the opposite sex.	12.5	10.4	6.8	7.9
56.	They worry about their health. (b)	72.8	59.1**	64.0	76.6*
57.	They walk slowly. (a)	82.6	76.9*	68.0	69.3
58.	They like to be helped across the street. (b)	26.8	18.6**	18.4	9.1*
59.	They are hard of hearing. (a)	71.5	58.4**	45.3	48.6
60.	They interfere with what other people do.	21.8	16.9*	21.1	8.0*
61.	They have to go to bed early. (a,b)	29.8	25.6	14.7	13.2
62.	They feel sorry for themselves.	29.9	17.2**	27.3	15.8*
63.	They have to be careful about their diet.	64.4	63.7	61.0	58.4
64.	They like religious programs on the radio. (a,b)	66.9	53.7**	35.5	23.0*
65.	They are poor eaters. (a)	23.0	17.8*	10.5	13.2
66.	They get upset easily.	63.5	50.8**	64.9	46.1**
67.	They need glasses to read.	67.2	61.2	76.3	63.2*
68.	They are very interested in religion. (a,b)	74.9	71.7	48.0	54.1
69.	They can be very helpful.	90.9	91.5	92.2	92.0
70.	When an old person sits next to me I talk to them rather than keep quiet	73.9	69.5	69.7	77.9
71.	I like to help people over 60 years old.	85.0	83.4	85.5	89.2
72.	I like to be with old people.	59.1	53.5*	48.0	58.7
73.	I will be happy when I'm over 60 years old. (b)	22.3	18.8	26.3	52.6*
74.	When I am with old people I feel good. (b)	61.1	52.5**	60.5	71.1
75.	I see my grandparents often. (a,b)	63.6	66.8	46.1	48.6

* $p < .05$ - Significant change between first testing and follow-up.
** $p < .01$ - Significant change between first testing and follow-up.

a Items with significantly different responses between two schools at first testing ($p < .05$).
b Items with significantly different responses between two schools at 3 month follow-up ($p < .05$).